DOCUMENT RESUME

ABSTRACT
              Much research in the area of person perception has
dealt with the problem of how people organize information about other
people, including how familiarity mediates the cognitive organization
of person information. One multi-operational investigation found that
information sets about familiar people, as opposed to unfamiliar
people, resulted in the increased availability of persons as units of
cognitive organization in a speeded categorization task and in the
ordinal clustering of information according to persons in free
recall. However, the two components of person familiarity of the
descriptive information were deliberately confounded in the
experiment. The effects of the separate contributions of familiarity
of names and the familiarity or consistency of descriptors were
investigated using the same information sets and tasks from previous
research, but with the addition of two extra conditions, i.e.,
familiar person names associated with unfamiliar information sets and
unfamiliar names associated with familiar information sets. The data
showed that both components of familiarity: (1) affected the
cognitive organization of person information: (2) contributed
independently when retrieving stored information (free recall task):
and (3) interacted when accessing person schema (sorting task).
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Effects of Person Familiarity on the Cognitive Organization of Social Information

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Effects of Person Familiarity on the Cognitive

Organization of Social Information

A great deal of research in the area of person perception has dealt with
the problem of how people organize information about other people. One factor
that has gained attention is the familiarity or unfamiliarity of others. It
has been assumed that people organize information about others using the same
processes regardless of whether they are familiar, those others who have already
been established in memory either through personal contact or general knowledge,
or whether they are unfamiliar, those who have not been established in memory
(i.e., strangers). Thus, if I told you that Jimmy Carter was a southerner, a
farmer and a leader, you would organize that information in the same way as you
would if I told you that Harry Smith was a movie actor, a teacher and tall.
However, recent research by Ostrom, Pryor & Simpson (1980), and Pryor & Ostrom
(Note 1) have raised some doubts about that assumption.

In their studies on familiarity, they used a multi-operational approach to
discover the effect of familiarity on the cognitive organization of information
during the encoding and retrieval stages of memory. As a result of several
pilot studies, they generated information sets about famous people that des-
cribed, but did not define them. For example, Abe Lincoln was described as tall,
bearded, honest, self-taught and a leader. From these information sets about
famous or familiar people, which included five facts each about five people,
they generated information sets about unfamiliar people (names that were not
famous but matched the famous people names in length) using one trait from each
of the five famous people. Thus, the information was unfamiliar in the sense
that the items are not commonly associated in describing a person. For example,
Stephan Falcoln was described as tall, a golfer, religious, tough and outspoken.
(See page 1 of the handout)   In this way, two conditions were set up: familiar

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people described by familiar facts and unfamiliar people described by unfamiliar facts. The researchers then used these two conditions to see if there was a difference in how people organized the information.

In one experiment that studied the encoding process, they used a speeded categorization task. The rationale behind using this type of paradigm was that if the information is organized by person, then there should be an increase in the availability of persons as units of cognitive organization, which in turn should lead to a decrease in sorting time. In other words, subjects should be able to sort cards bearing a person name and a descriptor attached to that name into predesignated categories faster if the information is organized by person. Subjects were given a shuffled deck of 3 X 5 cards, each containing one fact about one person. For example, a subject saw a card that said: Abe Lincoln was tall, or Bob Hope is a golfer. The object of the task was to sort the cards by person as quickly as possible. Thus, subjects were asked to put all the cards about Abe Lincoln in one pile, all the cards about Bob Hope in another, and so on. Subjects were either given nine cards to sort, three cards describing three persons each or 25 cards to sort, five cards describing five persons each. This condition was added in order to be able to generalize the findings across different set sizes. Subjects were also asked to search for possible spelling errors while they were sorting the cards. This was done in order to insure that subjects completely read each card.

Sorting time was measured in seconds. Pryor & Ostrom (Note 1) found a significant main effect for familiarity. Subjects sorted cards about familiar people faster than cards about unfamiliar people. See Figure 1 on page 2 of the handout. The means represent the sorting time per card. They interpreted this finding as support for the hypothesis that the encoding of information according to person categories is facilitated when the persons are familiar.

In the second experiment that studied the retrieval process, they used a free recall task. The same stimulus sets were used, however, in this study, the descriptor word on each card was underlined. Subjects were given a shuffled deck of cards and asked to read each card aloud. The deck was then reshuffled and subjects read each card aloud again. After this second exposure, subjects were asked to recall as many of the underlined words as possible in any order that they came to mind.

If people organize information by person and have an integrated impression of the person, then when asked to recall the information, they should tend to give all the person items together (in other words, all the facts about Abe Lincoln should be recalled together, all the facts about Bob Lope should be recalled together, etc.). An index to measure this grouping by person is ARC. ARC is a measure that ranges from 0, which represents chance grouping or clustering and 1, which represents perfect grouping or clustering. ARC, as a dependent variable, has some nice properties. It is invariant to the total number of items recalled and the total number of persons recalled. The data from this study was analyzed using ARC. As expected, information about familiar persons was clustered more in free recall than information about unfamiliar persons. See Figure 2 in the handout.

Pryor and Ostrom (Note 1) interpreted the results from these two studies and other studies using familiarity as an independent variable as giving support to the hypothesis that familiarity mediates the cognitive organization of person information. Although their research indicated that familiarity does play an important role in organizing social information, their results are open to several alternative explanations. Since they associated different sets of information with familiar persons than they did with unfamiliar persons, perhaps their results were due to the information sets rather than the person names.

The information sets about familiar people could have had greater inter-item consistency than did the information sets about unfamiliar people. Or the information sets about familiar people could have fit subjects' implicit personality theories better. For example, if I tell you that person X is old, conservative and hardworking, you might organize that information better than if I told you person X is tall, a golfer and religious, regardless of whether person X is familiar or not. Thus, it might not be just that familiarity of persons mediates cognitive organization. The information itself might play an even greater role in organization than whether the person is familiar or not.

In order to rule out these alternative explanations, two experiments were designed to test the effect of familiarity of name vs. the familiarity of infor- mation. We used the same information sets that had been used in the previous studies, however, we added two extra conditions. These two conditions consisted of familiar person names associated with unfamiliar information sets and unfam- iliar person names associated with familiar information sets. Thus, not only was Abe Lincoln described as tall, bearded and honest(a familiar name associated with familiar descriptors), so was Harry Prinley (an unfamiliar name associated with familiar descriptors). Likewise, not only was Stephan Falcoln described as tall, a golfer and religious (an unfamiliar name associated with unfamiliar descriptors), so was Clint Eastwood (a familiar name associated with unfamiliar descriptors).

We also used the same two tasks that the previous studies used. In the first experiment, 32 subjects from Ohio State University were paid three dollars for their participation in the experiment. They were given four decks of cards to sort, each representing the four conditions. In the second experiment, 32 subjects from Ohio State participated in the experiment in partial fulfillment of an introductory psychology course. Subjects read each deck aloud twice and then recalled the information in any order that came to mind.

In the sorting experiment, sorting speed was measured in seconds. Figure 3 on page 2 of the handout presents the mean sorting time for each condition. The main effect for name was significant while the main effect for descriptor was only marginally significant. The interaction between name and descriptor was also significant. As can be seen by the graph, subjects sorted the cards about familiar people faster than the cards about unfamiliar people. However, the familiarity of the descriptor also has an effect on sorting speed and this effect leads to a significant interaction.

In the free recall experiment, the information about familiar persons was clustered more than was information about unfamiliar persons. Figure 4 presents the means. The main effect for both name and descriptors was highly significant and the interaction between them was not significant. Thus, as can be seen on the graph, whether the information was familiar or not also had effect on clustering along with whether the name was familiar or not.

The data from these two experiments indicate that both components of familiarity affect the cognitive organization of person information. Although the results support the Pryor & Ostrom hypothesis that familiarity of person is an immediating factor, the familiarity of the descriptors also plays a role.

As the recall experiment shows, the familiarity of names and descriptors appear to contribute independently when retrieving stored information. The overall effect of differential clustering for familiar vs. unfamiliar person names may be due to a name discriminability process. Familiar names may be easier to recall and therefore provide a more convenient starting point for memory search during the retrieval stage. The overall effect of more clustering for familiar information sets as opposed to unfamiliar information sets could be due to the strength of inter-item associations. Accessing one item from a high association set will readily bring to mind other items from that set and therefore subjects will recall them in groups or clusters.

This same interpretation cannot be applied to the results of the sorting experiment. Familiarity of names and information does not contribute independently in the encoding process, rather they interact when accessing person schema. One explanation is that the difficulty of encoding is not different for unfamiliar persons regardless of whether the persons are linked to familiar or unfamiliar descriptors. However, for familiar people, the familiarity of descriptors facilitates the encoding of information in short-term memory.

In conclusion, familiarity does have an effect in the cognitive organization of person information but this effect is due not only to whether the person is familiar or not, but whether the information about the person is familiar or not.

Reference Note

1. Pryor, J. B. & Ostrom, T. M. The cognitive organiza. lon of person information: A multiple operationism approach. Submitted for publication, Ohio State University, 1980.

Reference

Ostrom, T. M., Pryor, J. B., & Simpson, D. D. The Organization of Social

Information. In E. Higgins, C. Herman, & M. Zanna (Eds.), <u>Social</u>

<u>Cognition: Cognitive structures & processes underlying person memory</u>

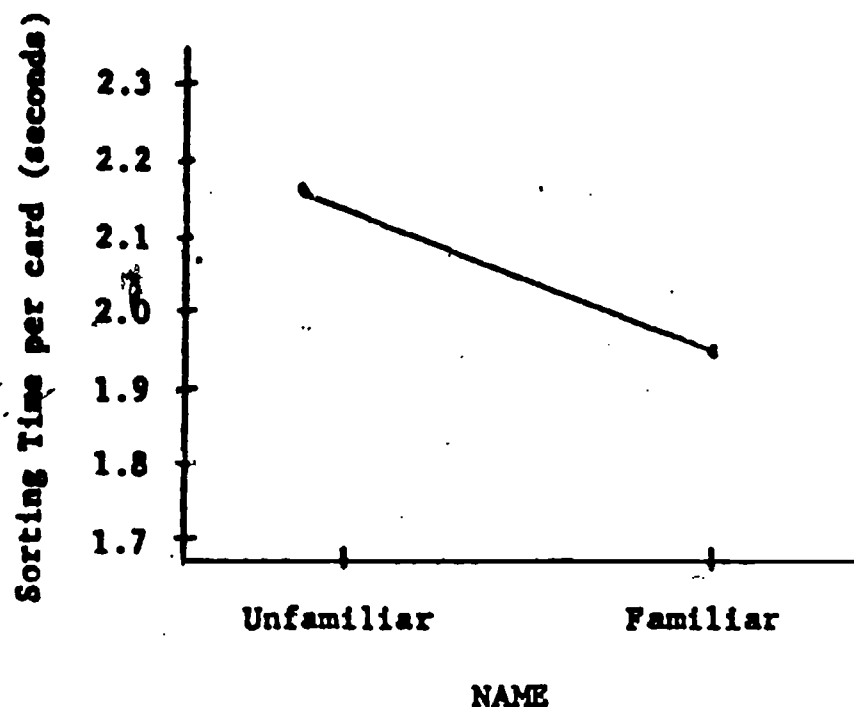<u>& social judgment</u>. Hillsdale, N. J.: Erlbaum Associates, 1980.

UNFAMILIAR PERSONS

	STEPHAN FALCOLN	DON CARR	ALEXANDER COX	CLARK PATTERSON	CHUCK COOKE
ABRAHAM LINCOLN	TALL	HONEST	SELF-TAUGHT	LEADER	BEARDED
BOB HOPE	GOLFER	OLD	CONSERVATIVE	COMEDIAN	HARD-WORKING
MUHAMED ALI	RELIGIOUS	ATHLETE	CHAMPION	BLACK	OPINIONATED
CLINT EASTWOOD	TOUGH	ACTOR	HANDSOME	RUGGED	VIRILE
JERRY BROWN	OUTSPOKEN	BACHELOR	POLITICIAN	CALIFORNIAN	INDEPENDENT

FAMILIAR PERSONS

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EXAMPLE STIMULUS SET

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Results from Pryor & Ostrom (1980)

Figure 1: Mean Sorting Time

Figure 1 plot — Sorting Time per card (seconds) vs NAME (Unfamiliar, Familiar)

NAME

$$\underline{F}(1, 20) = 13.888, \underline{p} < .003$$

Figure 2: Mean Clustering in Free Recall

Figure 2 plot — ARC vs NAME (Unfamiliar, Familiar)
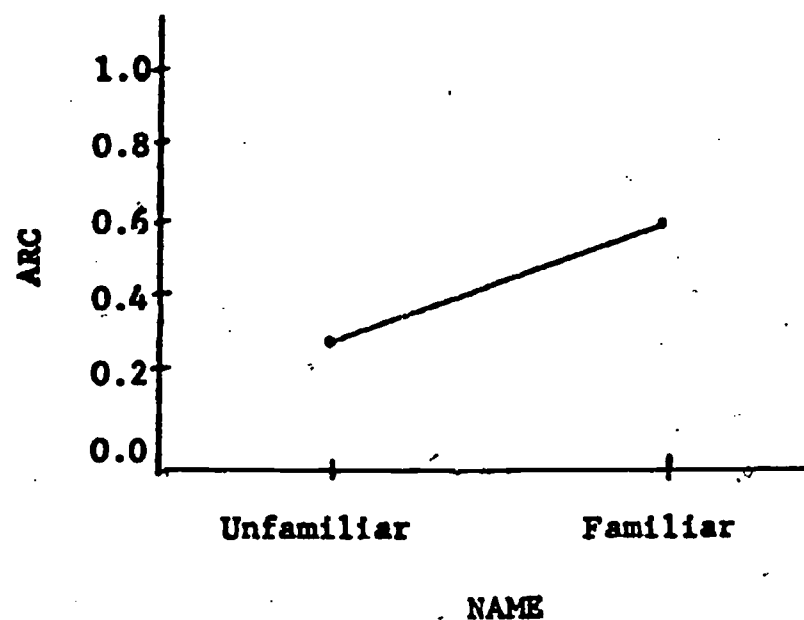
NAME

$$\underline{F}(1, 32) = 22.70, \underline{p} < .001$$

Research Designs

Pryor & Ostrom (1980)

NAME

	Familiar	Unfamiliar
Familiar	X	
Unfamiliar		X

DESCRIPTOR

Dukerich, et al., (1980)

NAME

	Familiar	Unfamiliar
Familiar	X	X
Unfamiliar	X	X

DESCRIPTOR

Results from Dukerich, et al., (1980)

Figure 3: Mean Sorting Time

Figure 4: Mean Clustering in Free Recall

Sorting time per card (seconds)

2.3
2.2
2.1
2.0
1.9
1.8
1.7

Unfam. Descr.

Fam. Descr.

Unfamiliar   Familiar

NAME

ARC

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

Familiar Descr.

Unfamiliar Descr.

Unfamiliar   Familiar
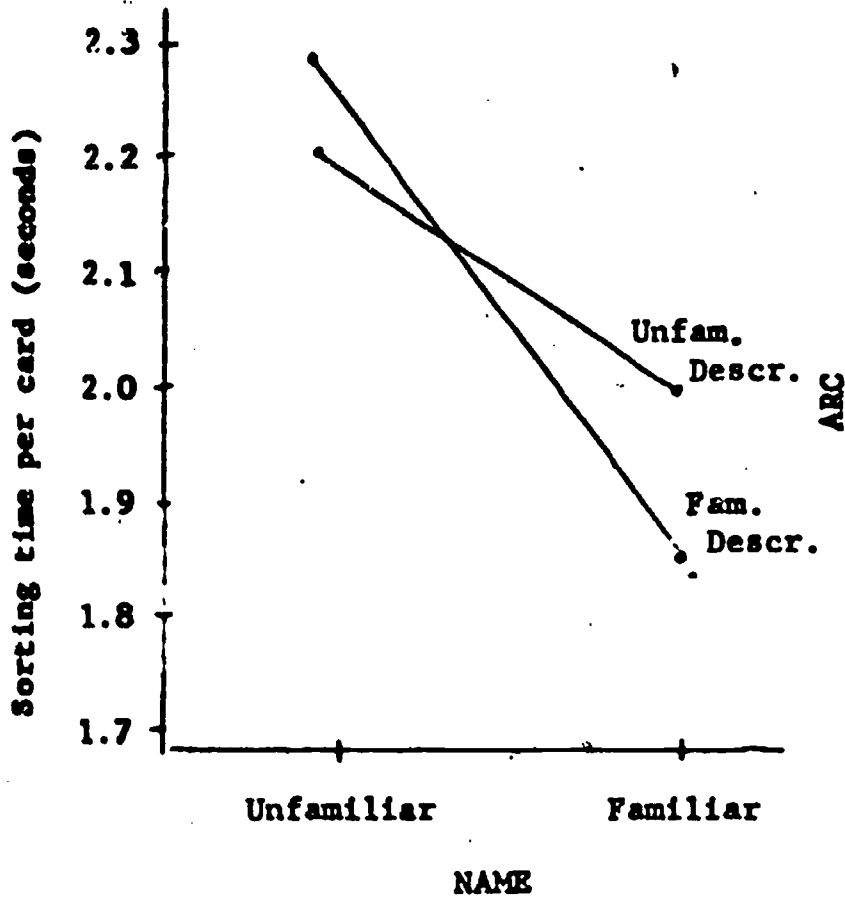
NAME

Name Main Effect:

F (1, 24) = 32.40; $p < .001$

Descriptor Main Effect:

F (1, 24) = 3.29; $p < .10$

Interaction:

F (1, 24) = 4.48; $p < .05$
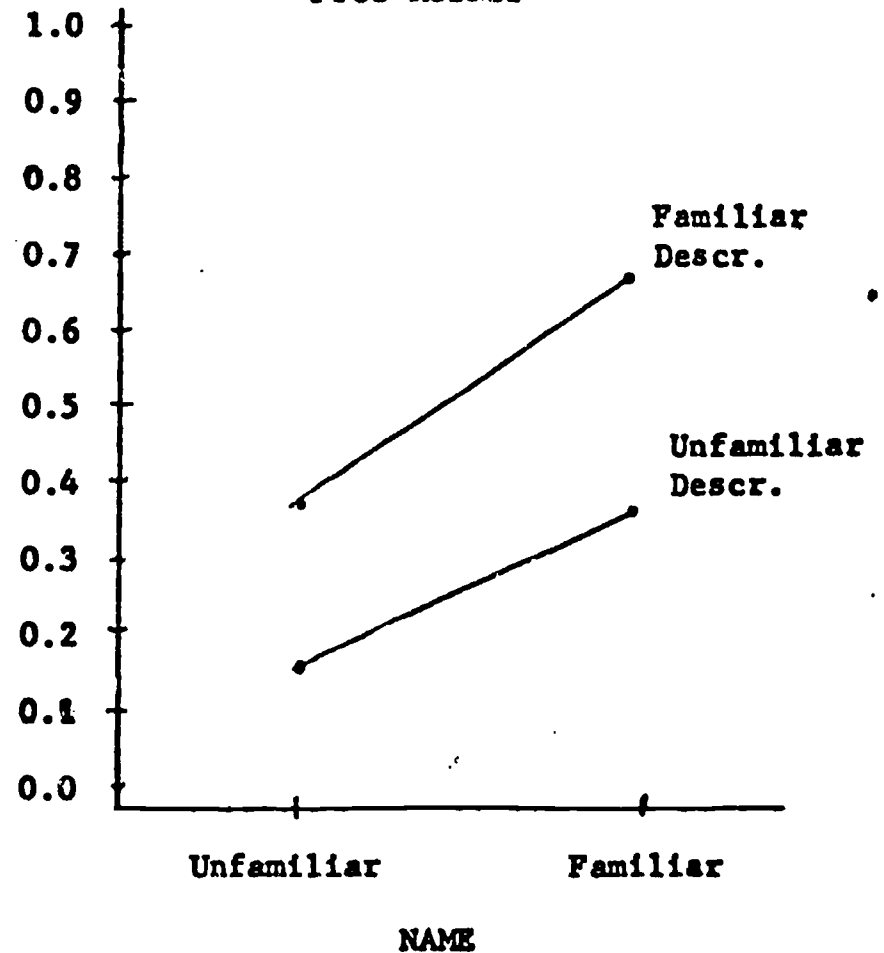
Name Main Effect:

F (1, 24) = 13.58; $p < .001$

Descriptor Main Effect:

F (1, 24) = 13.61; $p < .001$

Interaction:

F (1, 24) = 1.19; p = n.s.

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